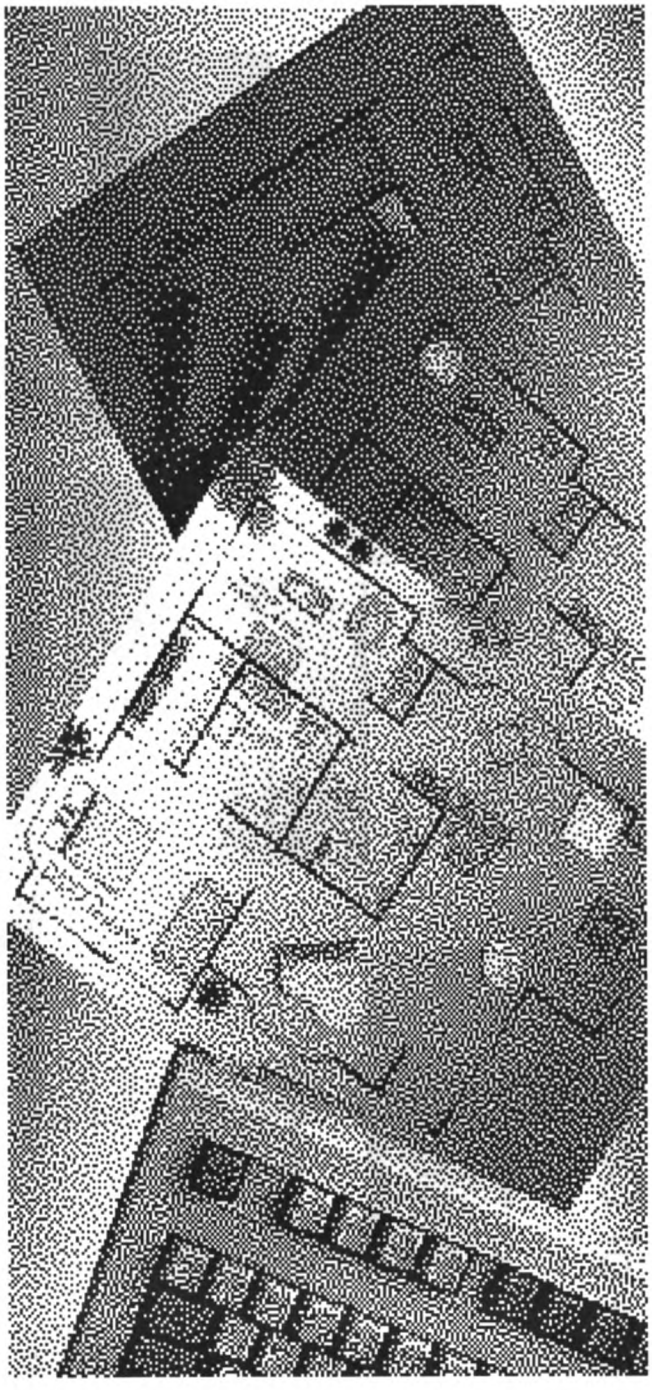
EXPERT Home Design™



USER MANUAL

For IBM PC, XT, AT, PS/2 and compatibles

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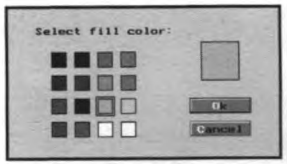

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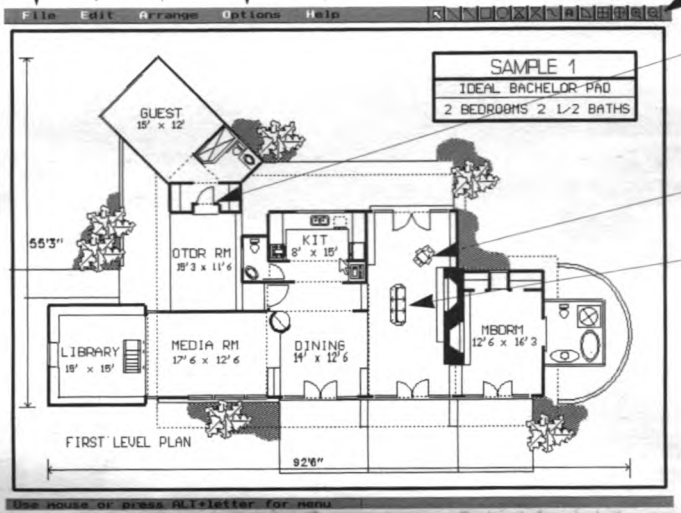

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Expert Home Design™

Users Guide

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Chapter 1 Welcome to Home Design

Welcome to Home Design: the program that creates a perfect home or furniture plan, yet is as easy to use as a drawing program.

In many ways, using Home Design will be like sketching on graph paper: but instead of picking up your pencil, you'll drag your mouse. And, you'll find that it's superior — you can draw your walls correct to the nearest inch, use over 125 professionally drawn furniture pieces instead of sketching, and much, much more!

Just pick a tool and draw; or select a piece of furniture and copy it into a document. You can immediately begin planning your home improvement project, without spending a large chunk of time learning the program. And our Mortgage program will help calculate the costs of building and financing your house.

If you wish to get started right away, we recommend reading our QuickStart — it's chapter three. Chapter eleven will tell you all about the drawing tools.

HERE'S WHAT YOU'LL FIND:

Over 125 realistic looking, re-sizable library objects: sofas, beds, kitchen appliances, bath fixtures, tables, bookcases, TV's, and more. Even specialized objects like home office furniture! Create your own custom furniture pieces for repeated use in new documents — just draw and save them in your own libraries.

Easy to use drawing tools let anyone create a great plan. There are basic tools, for creating objects such as lines and boxes. There are specialized tools for drawing doors and windows.

Scaling controls, on-screen grids, and the measurement display allow you to place objects precisely and insure printed plans will be 100% accurate.

You can easily try different color and fill patterns to preview how different color schemes will look in your room or house.

Chapter 2 Installing Home Design

SYSTEM REQUIREMENTS

To use Expert Home Design, you'll need

- ❑ DOS 3.0 or higher.
- ❑ 640K bytes of Random Access Memory (RAM). Expert Home Design will also automatically use additional memory as needed from the following sources:
  - — XMS (Extended) memory, as provided by the HIMEM.SYS driver in your CONFIG.SYS file.
  - — EMS (Expanded) memory, as provided by a driver such as EMM386.
  - — Virtual memory, which the program will automatically create from free space on your hard disk.
- ❑ A hard disk.
- ❑ A VGA graphics adapter.
- ❑ Printers: Epson dot matrix, IBM ProPrinter, HP LaserJet series II, HP DeskJet, or a printer that emulates them.
- ❑ A Microsoft compatible mouse is suggested, but not required.

A note re the Program disk: this program comes stored in compressed format. You *must* run the install program before you use Expert Home Design so that it may uncompress the files and configure the program for your computer.

STARTING THE INSTALLATION PROGRAM

To run the Expert Home Design installation program:

❶ Place the program disk in a floppy drive and log into the drive.

❷ At the DOS prompt, type INSTALL Enter.

In the example below, the user has placed the disk in drive A:

```
A:          Enter
INSTALL     Enter
```

The install program will display a copyright notice.

❸ Press Enter or move the mouse cursor to the "OK" button and press the left mouse button to continue.

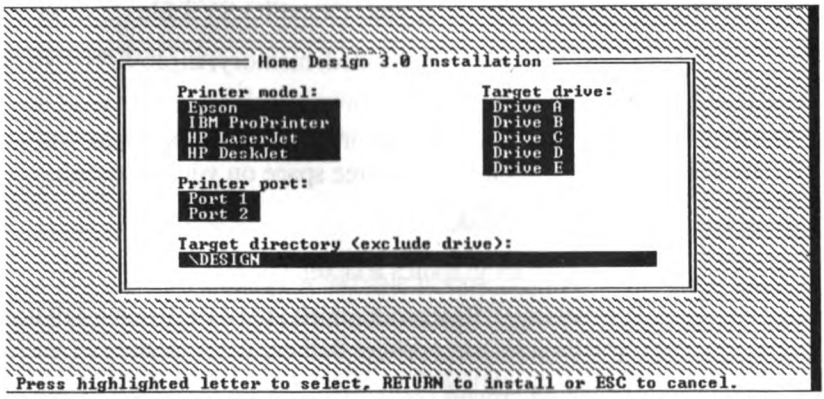
Install will then test your system and identify your graphics display adapter. It will display the results in an information box.

❹ Press Enter or move the mouse cursor to the "OK" button and press the left mouse button to continue.

THE INSTALLATION OPTIONS

The Expert Home Design Installation options screen allows you to choose the printer model, printer port, target drive and the name of the directory to install to. Each of the first three categories is "multiple choice."

To select an option for the first three categories, type the highlighted letter of the choice that matches your system for each option group.



Printer Model

Install by default chooses **Epson** dot matrix. You may also choose an **IBM** ProPrinter, HP **LaserJet** series II, or HP DeskJet, instead. This program will not print in color.

Printer Port

Install by default selects port **1** (parallel port 1 or LPT1). You may alternately choose parallel port **2**. If you're unsure what port your printer is attached to, choose the default, because it will cover most users.

Drive

Type the letter of the drive to install the program to. The Install program will choose drive C: by default.

Program Directory

The Install program allows you to specify the name of the subdirectory in which to install Expert Home Design. It will automatically create the directory when necessary. The default directory is called \DESIGN.

Should you wish to change the name of the directory, type 'R' as in 'Target Directory.' Be sure the directory name is eight letters or less, contains no illegal DOS characters such as the blank space, and is preceded by a backslash. When you've entered the name, press Enter.

The Install Buttons

Once you've indicated your installation choices, press Enter to install, or Esc (Escape) to cancel.

STARTING THE PROGRAM:

Once you've installed Expert Home Design, you may start the program by logging into the proper drive and/or directory.

In the example below, the user starts the program from a subdirectory called \DESIGN on hard drive C:

```
C:                  Enter
CD\DESIGN           Enter     (substitute alternate directory if necessary)
DESIGN              Enter
```

Note: The program will automatically determine the graphics display adapter and attempt to start the program in the best mode. If you have more than one graphics card, it's possible the program will incorrectly identify the graphics adapter. If this occurs, type **DESIGN /?** Enter at the DOS prompt to view a list of command line options for overriding the automatic graphics mode selection.

Chapter 3 Basic Operations

This chapter will provide you with an overview of the basic menu selection, object selection, and object manipulation procedures.

MENU SELECTION

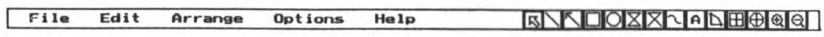
Keyboard users may select a command from a menu by first "pulling down' the menu.

- Hold down the Alt key.
- With the Alt key held down, tap the boldface letter in the menu bar. For example, Alt plus 'F' pulls down the **F**ile menu.
- With the menu 'pulled down,' a list of commands will appear. Tap the boldface letter in the command you wish to execute (this time without holding down the Alt key). You may also use the up or down arrow keys to move the highlight bar to a command, then press Enter to execute it.

Mouse users may select a command in the following way:

- Move the mouse cursor to the word 'File' on the menu bar.
- Press down (click) the left mouse button; this will make the 'pull down' menu appear.
- With the button still held down, move the mouse downwards. A highlight bar will appear. When the command you wish to execute is highlighted, release the mouse button.

Note: you may also select a menu command with an accelerator key. These are the shortcut key combinations that appear next to the most frequently used commands on the menu. For example Ctrl + 'C' appears next to the Copy command in the Edit menu.



CHOOSING A TOOL

The toolbox is on the right side of the menu bar. The tools are the main drawing aids, and create lines, shapes and text. Each tool has a small picture or 'icon' that represents its function. From left to right, the tools are the Pick tool, Line, Arrow, Box, Circle, Filled Polygon, Open Polygon, Curve, Text, Door, Window, Origin, Zoom In and Zoom Out tools.

When a tool is selected the cursor will change to reflect that the tool is active. When you move the cursor in the drawing area and press Enter or hold down the left mouse button, the tool will begin its appropriate drawing action. In some cases, such as the Origin tool, it's an instantaneous effect. In others, such as the Line tool, you'll need to move the cursor to draw, then take a separate action (such as releasing the mouse button) to end drawing.

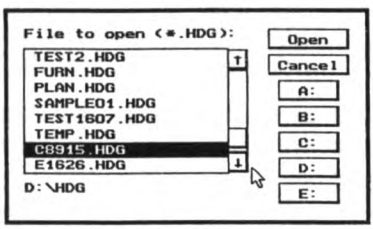
Keyboard users can select a tool with the function keys. Going from left to right, F2 through F9 will select the basic drawing and selection tools, starting with the Pick tool, ending with the Curve tool. Ctrl plus F2 through Ctrl plus F7 will select the specialized plan tools, including doors and windows, text, and zoom functions.

Mouse users should move the mouse cursor to the tool desired, then click.

DIALOG BOXES AND BUTTONS

Certain commands lead to a dialog box. You must either type some information, or choose from the options available.

Keyboard users: if there's a list box in the dialog, (as in a list of file names), you must use the up or down arrow keys to highlight an item in the list. Then, to tell the program to act on the item, choose a button. Look for the boldface letter on the button (such as the 'O' in **OK**). Tap the boldface letter on the keyboard.



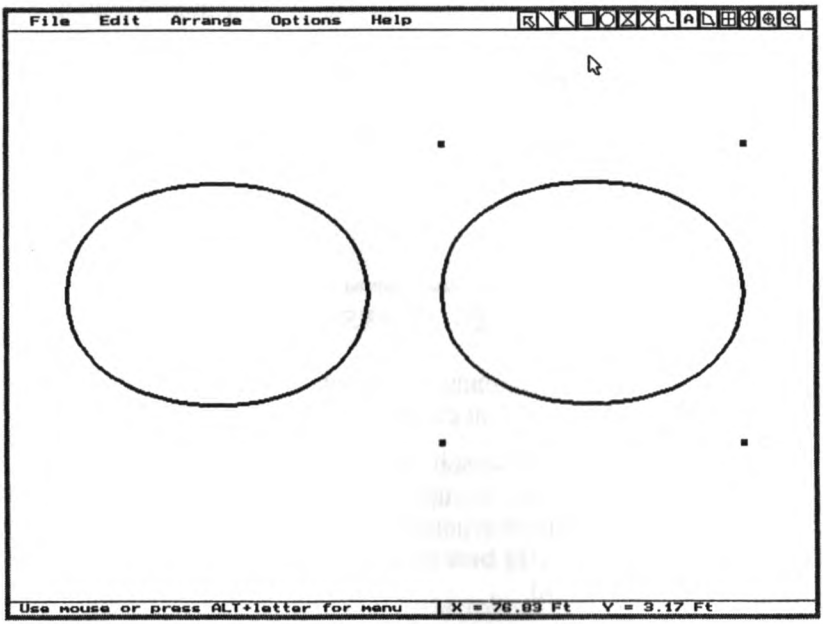
Mouse users will generally highlight a 'selection' by moving the mouse cursor to it, then pressing and releasing the left mouse button. Tell the program to act on your choice by choosing a button in the dialog box.

To choose a button, move the mouse pointer so that the tip is on top of the button. Then press and release the left mouse button. (Hereafter, a quick press and release of the left mouse button will be called a 'click.') Note that sometimes (as in the case of the file list) you must move the mouse cursor to the up or down arrow, then click the left mouse button to make the highlight go up or down, respectively.

SELECTING AN OBJECT

An object is any element in your design -- a square, a line, a word. Before you can manipulate the object, you must select it. You'll know it's selected

because its handles -- the small black squares at the corners surrounding the object -- will appear. You can also select more than one object at once. When an object(s) is selected, you can then use a menu command to change its color, grab a handle to re-size the object, or delete the object by pressing the delete key.



The 'handles' or small squares at the corners of the ellipse on the right indicate that it's the currently selected object.

Keyboard users may select an object by first choosing the Pick tool (if it isn't already active). Press F1 to do so. An arrow pointer will appear. You may move the pointer on top of an object by pressing the up, down, left or right arrow keys. When the cursor is positioned correctly, select the object by pressing Enter. Note: Shift plus an arrow key will make the cursor move faster.

If an object is below another, Enter selects the top object only. To select the bottom object, you must press Ctrl and Enter at the same time. To select an *additional* object, move the cursor to the second object, then press Shift and Enter at the same time.

Mouse users may select an object by moving the mouse cursor to it, then clicking the left mouse button. If an object is below another, this will select the top object only. To select the bottom object, hold down the Ctrl key as you click. To select an additional object after the first is selected, move the cursor to the second object, then hold down the Shift key as you click.

Note: you may also select multiple objects by drawing a box around them with the Pick tool. Anything inside the dotted line box will be selected.

RE-SIZING OR MOVING AN OBJECT

Every object has handles; when an object is selected, the handles will appear as small black squares.

Keyboard users may re-size an object by selecting the object with the Pick tool, then moving to cursor to one of the handles. When the tip of the pointer is on top of the handle, press Enter. Use the arrow keys to move the handle. This will re-size the object in the direction that you move the handle. Press Enter again, when the object is the size you wish.

To move an object, select it with the Pick tool, then move the cursor so that the tip of the cursor arrow is inside the object (in the middle of the line, if it's a line object). Press Enter, then use the arrow keys to move the object. Press Enter again, when the object is positioned where you wish.

Mouse users may re-size an object by selecting it with the Pick tool, then moving the tip of the cursor to a handle. Press and hold the left mouse button, then move the mouse in the direction you wish to grow or shrink the object. When it's the proper size, release the mouse button. Hereafter, this operation (pressing the left mouse button, moving the mouse, then releasing the mouse button), will be referred to as 'dragging' the mouse.

To move an object, select it with the Pick tool. Move the cursor so that the tip of the cursor arrow is inside the object (in the middle of the line, if it's a line object). Drag with the mouse to move the object.

Note: it's possible to lock an object, so that you won't be able to move or resize it. To lock an object, you must use the **L**ock command on the **A**rrange menu. To unlock an object, you must use the **U**nlock command on the same menu; then you can move or re-size it. You can tell an object is locked because the handles will appear as an outline box rather than a solid black box.

Chapter 4 QuickStart

If you would like to quickly familiarize yourself with Home Design , this QuickStart exercise is for you. It will walk you through the most important procedures. This chapter will provide you with:

- ❑ Practice using the menu commands and toolbox.
- ❑ Practice using the drawing tools.
- ❑ A practice design session in which you'll create a simple floor plan with furniture.

To follow the Quick Start, you only need to know how to select commands from the menus. Mouse users should also be familiar with the following actions:

- Click: to press and release the left mouse button quickly.
- Drag: to press the left mouse button, hold it down while moving the mouse, then release the button when the mouse movement is finished.

Working With the Drawing Document

Start the program by typing DESIGN and Enter at the DOS prompt. You should see the menu bar on top, which includes the tool box. The status line, which provides information for the active command, as well as the cursor position will appear at the bottom.

The blank area inbetween the menu bar and status line is the design area: think of it as a blank page. Any plan you draw or edit will appear here. An arrow cursor should appear in the middle of the screen. Mouse users may move the mouse to move the cursor. Keyboard users may use the arrow keys.

Basic Drawing

Find the line tool in the toolbox (its icon is a diagonal line) and click on it. Move the mouse into the drawing area, press the left mouse button and drag. Keyboard users may press F3, then Enter, use the cursor keys to move the pointer to the end point, then press Enter again.

A line appear, with two squares at each end. The small squares are called 'handles.'

Select the Pick tool from the toolbox; its icon is the big arrow (F2).

Key Concept: every part of any drawing you create with Expert Home Design is an object -- an individual piece of information that the program can manipulate for you with the tools. The Pick tool is your way of telling the program which object you want to manipulate.

When you select an object with the Pick tool, its handles -- small squares at the endpoints -- appear. Here, the line's handles control the line's size and endpoints.

Move the cursor to one of the line's endpoints, press the left mouse button and drag. This changes the length of the line. Lift up the button when the line is the length you wish. (Keyboard users, use the cursor keys, press Enter, then Enter a second time). You can re-size and manipulate any object you draw with the drawing tools in the same fashion.

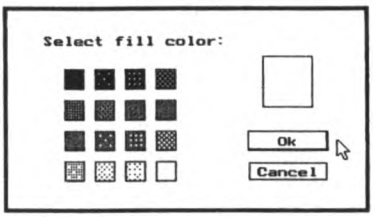
Select the box tool; its icon is the rectangle. Drag from the upper left of the document window to the center. A box will appear.

Select the Pick tool again. Move the cursor inside the box, and drag. (Keyboard users, use the cursor keys, press Enter, use the cursor keys, then Enter again). This is how you move an object.

Let's practice manipulating how the object looks.

❶ With the box still selected, choose Fill Color from the **O**ptions menu.

You'll see the color selection dialog box.



❷ Mouse users, click one of the colored squares (CGA and Hercules users may choose black or white only).

Keyboard users, use the arrow keys while watching the sample box.

When you find a color you like, select the **OK** button. Keyboard users, press 'O,' as in '**OK**.' The box will be filled with the color you just selected.

❸ There will be a black line or border around the box; from the **O**ptions menu, choose Line **C**olor.

Choose a different color than the one you chose for the fill. The line or border will change color once you select the **OK** button.

❹ Now choose Line **T**hickness from the **O**ptions menu.

Choose 'Thick' from the popup submenu. The line should be 'fatter' than it was before.

Key Concept: use the tool box to create, size and move objects. Use the **O**ptions menu for specifying special attributes such as color.

❺ We'll start a new design document window without saving the line and box we just drew. From the **F**ile menu, choose the **N**ew command.

A box will appear asking if you wish to discard the changes you just made. Choose '**Y**es.'

Key Concept: when you make an editing change to either a new document or a previously saved document, Home Design will ask whether you wish to save your changes.

❻ From the **O**ptions menu, choose Fill **C**olor again.

The standard color selection dialog box appears. Choose the 'white' box, then the **OK** button. This will restore the color option to its original setting.

CREATE A DESIGN DOCUMENT

The best starting place is the outside walls of the house. (*Note*: you may turn to page 16 to see what the outside walls look like).

❶ Choose the Box tool from the Toolbox. Look at the measurement on the status bar. It displays the position of the tip of the cursor versus the upper left hand corner of the design area. It measures horizontally ('H' or 'X') and vertically ('V' or 'Y'), in feet or meters.

When you activate a drawing tool, set a point and drag, the measurement window will display the length and width of the object as you draw it.

❷ Select the Box tool.

Begin drawing from the zero point in the upper left corner of the design document. Drag the mouse, watching the measurement window. When the vertical ('Y') and horizontal ('X') measurements are fifty feet horizontally by thirty feet vertically, release the mouse button. Keyboard users: move the cursor to the upper left hand corner using the arrow keys. Press Enter then move the cursor until the measurements are correct. Press Enter again.

Note that part of the outside walls will be clipped by the top and left edges of the screen. Let's move the box.

❸ With the Pick tool, select the inside of the box. Move the box to the center of the document window.

❹ Select the Origin tool from the toolbox; its icon is the circle with the cross inside. It will be useful if the Measurement display's zero point matches the top left-hand corner of the box. This tool tells the program to make the next point you select the zero point.

❺ Click on the upper left corner of the box. Note that as you move the cursor, the Measurement window now measures from that corner.

ADD THE INTERIOR WALLS

Once the outer walls of the house are complete, the next step is interior walls. Our house plan will include five rooms: two bedrooms, one bathroom, one living room, and one kitchen.

Draw the upper wall of the master bedroom. The bedroom is 15' by 25', and occupies the lower left corner of the plan. The interior walls will be thinner than the exterior walls.

❶ Use the Pick tool and click outside the box area. This action selects no object. We wish to select an option for the next object, so first must de-select the box.

Key Concept: to change an object, first select it with the Pick tool, then make the change. If an object is selected and you choose the **O**ptions menu, we assume you wish to so something to that object. If nothing is selected, then the option applies to the next object you create.

❷ Next, from the **O**ptions menu, select Line **T**hickness and choose '**N**ormal.' This sets the inside walls to a thinner width.

❸ Select the box tool, and position the cursor so that the Measurement display reads 15.00' ('Y') by 0.42 ('X'). Draw a 25' wall:

> Drag to the lower right. (Keyboard users, position the pointer with the cursor keys, press Enter to begin drawing, Enter when finished). Release the mouse button when the Measurement window reads 25.00' ('W') and 15.00' ('H').

❹ Create one large outline for three rooms at the top of the house.

> With the box tool again, find position 0.00' ('X') by 0.00' ('Y'). Drag to position 35.00' ('W') by 10.00' ('H'). (Keyboard users, position the pointer with the cursor keys, press Enter to begin drawing, Enter when finished).
>
> Note: the measurement box first shows the cursor position along the 'X' (horizontal) and 'Y' (vertical) window axes. When you begin drawing an object, we change the 'measure' because each object has width ('W') and height ('H').

To prevent accidentally moving the walls with the Pick tool, group them together.

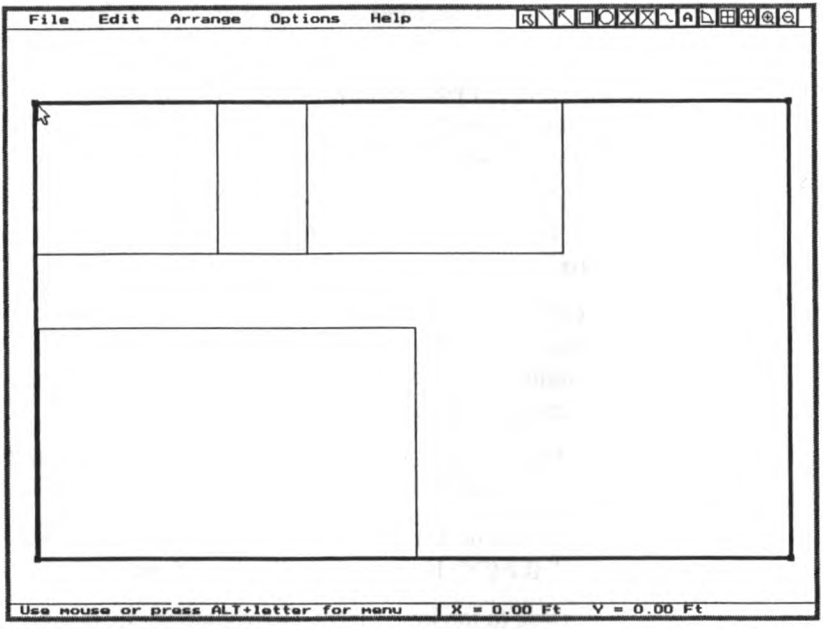
❺ From the Edit menu, choose Select **A**ll.

Key Concept: notice that all the handles of each of the three boxes are visible. Select **A**ll is a convenient way to execute a single command on all the objects in your drawing.

❻ From the **A**rrange menu, choose **G**roup.

All three boxes will now be treated as a single object. It will be impossible to accidentally move a box out of position.

Next, add two walls to create three rooms at the top. The first room in the upper left will be the smaller bedroom, measuring 12' by 10.'



❼ Choose the line tool. Move the cursor until the Measurement window reads 12.0' ('X') by 0.00' ('Y'). Drag to the line below, until the Measurement window reads 0.0' ('W') by 10.0' ('H'). (Keyboard users, position the pointer with the cursor keys, press Enter to begin drawing, Enter when finished).

❽ The next room will be the bathroom, 6' by 10'. Move the cursor to the point where the Measurement window reads 18.0' ('X') by 0.00' ('Y'). Drag to the line below; release when the Measurement window reads 0.0' ('W') by 10.0' ('H'). (Keyboard users, position the pointer with the cursor keys, press Enter to begin drawing, Enter when finished).

That's the last of the interior walls. If everything looks like the sample above, Select **A**ll (**E**dit menu) and **G**roup (**A**rrange menu).

WE DO WINDOWS

The simplest way to add windows is to place the cursor over an exterior wall, and draw right over the line. The Line Thickness should match that of the exterior walls.

❶ From the Options menu, choose Line Thickness. Select 'Thick.'

❷ Select the Window tool (it looks like a window). Along the outside walls of the house, decide where the windows should be and draw.

Be sure to position the cursor (the cursor shape is an 'X') in the middle of the exterior wall line. Watch the Measurement display as you draw. The standard window is 3 ft. wide; picture windows should be 6 ft. and up. Remember to leave room for the doors!

Your windows will appear as hollow white lines inside the walls.

❸ When done, Select All, then Group all your objects.

For a shortcut, try the accelerator keys: press Ctrl plus 'A' for Select All; Ctrl plus 'G' for Group.

OPEN THE DOOR

A door object should usually be 'Normal' width. The width of the outer wall is usually 'Thick.' There are two ways to draw a door. The first is to lay a 'white box' underneath. This 'hides' the wall below it.

You may alternatively leave an opening for the door, using lines for the walls rather than the box tool. This is a matter of individual preference.

If you choose to draw the door over a wall, this is how to lay down the 'white box.' In preparation, de-select all objects by clicking on a blank area with the Pick tool.

❶ From the Options menu, set the Fill Color to white.

❷ Set the Line Color on the same menu to white also.

❸ Set the Line Thickness to 'Normal' on the same menu. (If you've been following this exercise, it's already set).

❹ Choose the Box tool and draw a box the width of the door.

Starting slightly above the wall, drag until the box ends slightly below it. Use the Measurement display to determine the correct width. The 'white box' should cover the wall, appearing to make a hole in it.

In this case, first click outside the house with the Pick tool, to

deselect it. Change the settings as mentioned above. Select the box tool. Start the box at position 27.0' ('X') and 31.0' ('Y'), and draw to 3.0' ('W') and 1.0' ('H').

Note: when you become adept at drawing with the program, you may also blank out parts of walls with the line tool. The Line **C**olor should be set to white; but you must be careful to position the cursor in the middle of the wall line.

❺ When done, Select **A**ll, then **G**roup all your objects: press Ctrl plus 'A' for Select **A**ll; Ctrl plus '**G**' for **G**roup.

This house will have only one door. The QuickStart house is not supposed to be a real house -- just a demonstration of the essentials.

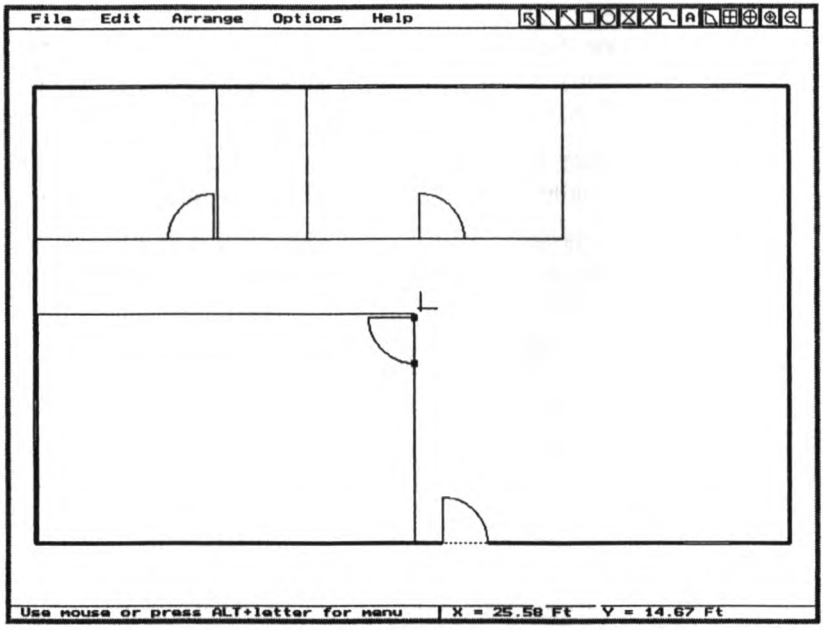
Now to add the door:

❻ Select the Door tool (it looks like a door).

❼ Starting from where you want the hinged side of the door to be, draw a line from one side of the opening in the wall to the other.

A dotted line and arc will appear. The arc indicates the door's path.

❽ If the door is opening the wrong way (i.e., out instead of in), from the **E**dit menu, select the Flip command. Finally, **G**roup the objects.



Here's how to add furniture from one of the libraries.

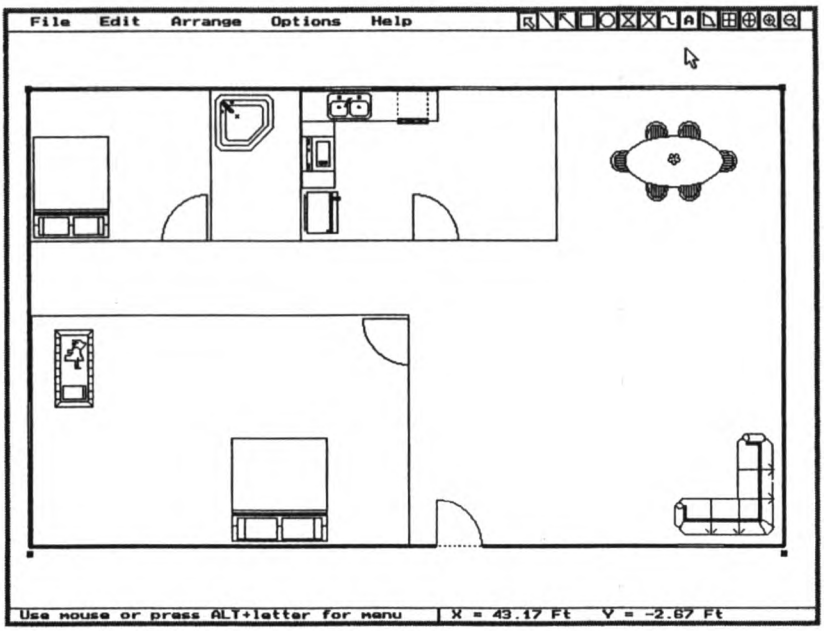
From the **F**ile menu, choose **L**ibrary. A file dialog box will appear listing the available libraries. Select your file choice from the list by highlighting with either the up or down arrow keys. Press Enter to display it. Mouse users may move the mouse cursor on top of a file name and click the left mouse button, then move the cursor on top of the '**O**pen' button and click the left mouse button again.

Your document will disappear, and several furniture objects will appear on screen. Locate a piece of furniture you wish to paste into the design document and select it.

Keyboard users, hold down Ctrl and press 'C.'

Mouse users, click the right mouse button, or hold down Alt and click the left mouse button.

You'll return to the document and the piece will appear on screen. Using the Pick tool, move the furniture to wherever you wish to place it. For practice, copy several more pieces into the design. In the sample illustration, note that the beds and the sofa have been flipped. The kitchen 'counter' is simply 2' deep boxes, and the built in sink, range and dishwasher were simply copied on top of the boxes.



SAVE THE PRACTICE FILE

What's the most important thing to do while working on a document (any document)? Saving your work. Here's how to save your file.

❶ From the **File** menu, choose Save **A**s. The Save **A**s file dialog box will appear.

❷ Type "TESTFILE" (without the quotes) in the file name box, and press Enter or click on the **OK** button.

VIEWING AND PRINTING A SAMPLE FILE

Expert Home Design includes two sample home plans. In this section, we will view and print one of these files.

❶ First, open a file called 'SAMPLE1.HDG.'

From the **File** menu, choose **O**pen. The open file dialog box will appear. Locate the listing for 'SAMPLE1.HDG,' and select it. The plan will appear.

❷ From the **File** menu, choose **P**rint. Check to make sure that any settings displayed are correct.

❸ Click the **OK** button. Your Home Design document will be sent to the printer.

CONCLUSION

This exercise was designed to give you a feel for the basic program procedures. We hope you enjoy using Expert Home Design.

If you wish to quit the program now, from the **File** menu, choose the **E**xit command. To close the sample document and go on to another design, choose **F**ile/**N**ew.

The following chapters provide explanations of the menus, commands, dialog boxes, tools and other program features. At the beginning of each chapter you'll see an illustration of the menu. Command descriptions follow in the order they appear on the menu.

Chapter 5 The File Menu

The File menu controls file and printing operations. It includes commands that open, create and save design document files. The commands for printing, as well as for quitting Home Design are located on this menu.

NEW

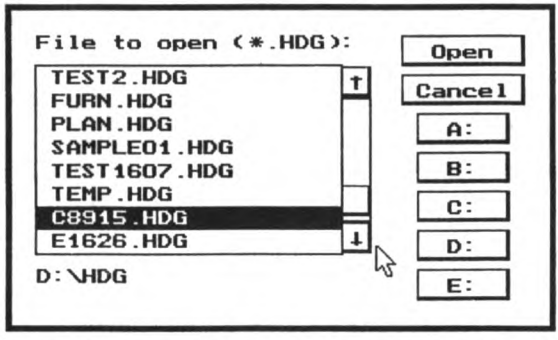
The New command provides a blank design document, ready for editing. The new document is untitled — it has no file name. See the explanation for the Save As command for instructions on naming and saving a new file.

OPEN

To retrieve an existing design document file, use the Open command. Choose a document from the file dialog box. The default file extension is *.HDG, which is Home Design's proprietary format.

Keyboard users: to select your file choice use either the up or down arrow keys to highlight a file name, then press Enter. To make the file list go away without choosing a file, type 'L,' the highlighted letter on 'Cancel' button.

Mouse users: move the mouse cursor on top of a file name and click the left mouse button. Then move the cursor to the 'Open' button and click the left mouse button again. To make the file list go away without choosing a file, move the mouse pointer to the 'Cancel' button, then click the left mouse button.



You may display files on another drive by typing the letter of the drive. Or you may move the mouse cursor on top of the appropriate drive button, then click the left mouse button. The program displays up to five drive buttons.

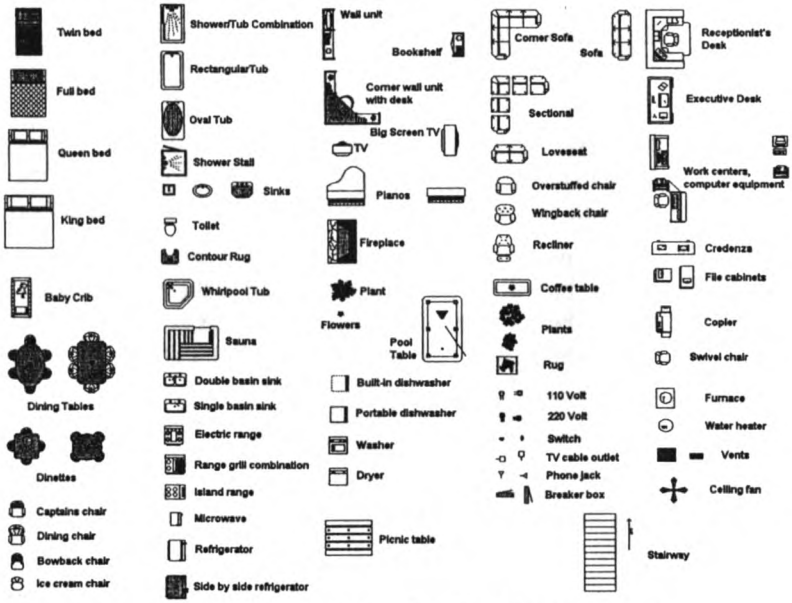
You may view files in a different directory or on another drive. The first listing in the files list should appear as two dots (..). This is a standard DOS convention indicating the parent directory, (the directory one level above the current directory). If you select and Open the '..' listing, the file list will change to show any .HDG files in the parent directory.

If there are subdirectories under the current directory, the subdirectory names will appear in the file list. '<DIR>' will appear to indicate that it's a subdirectory. You may Open the subdirectory in the same manner you open the parent.

LIBRARY

To open a furniture library file and copy furniture into your design, use the Library command.

Choose a library from the file dialog box. The default file extension is *.LIB, which is Home Design's proprietary format. The libraries are divided by room: you'll see a file list with these choices: baths, bed, den, dining, kitchens, living, office, symbols.



A selection of Home Design library objects.

Keyboard users: to select a library, use the up or down arrow keys to highlight a file name, then press Enter. To make the file list go away without choosing a library, type 'L,' the highlighted letter on 'Cancel' button.

Mouse users: move the mouse cursor on top of a library name and click the left mouse button. Then move the cursor to the 'Open' button and click the left mouse button again. To make the file list go away without choosing a library, move the mouse pointer to the 'Cancel' button, then click the left mouse button.

When the library appears, select a piece (or pieces) of furniture to copy into your document. First select it: the Pick tool is active as soon as you open the library. You may select more than one object with Shift plus Enter or Shift plus mouse click. You may select all the objects at once by pressing Ctrl plus 'A.'

To copy the object and return to the design document, press Ctrl plus 'C.' Mouse users may click with the right mouse button or hold down Alt and click the left mouse button. The library objects will appear in your document. To return to your document without copying anything, press Esc (Escape).

SAVE

To save the current document, use the **S**ave command. For a new file, you'll see the Save **A**s dialog box, which is explained below.

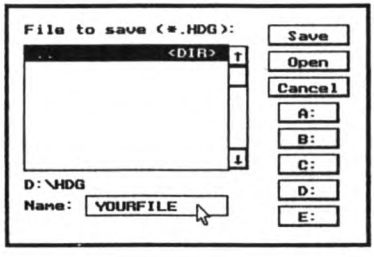
SAVE AS

The Save **A**s command allows you to save the current design document under a new file name. You'll see a dialog box in which you may enter the name. To type the name:

Keyboard users: press the letter 'N' as in 'Name,' which appears below the fill-in box. A cursor will appear in the fill-in box; you may begin typing the name.

Mouse users: move the cursor inside the fill-in box and click, then type the name.

Remember: you're limited to legal DOS file names: up to eight letters, no blank spaces, letters and numbers only. You don't need to type in the extension. Press Enter when you've completed the name, then select the Save button to save the file.



The Save As command is useful for creating multiple copies of the same design file sharing the same basic elements. Save one file under a name such as Template.HDG, then use the Save As command to create File01.HDG, File02.HDG, etc. Open the latter files and individualize them as you wish.

If you wish to save the file on a different drive, select it with the appropriate Drive button. If you wish to save it in another directory, choose the directory you wish from the list in the same way you would change the directory with the Open command described above.

SAVE LIBRARY

To create your own custom furniture libraries, use the Save Library command. If you have certain furniture or shapes which you use repeatedly, it's to your advantage to do this, so that you may more easily copy them into your design documents. To do so:

❶ Draw the furniture or outlines you wish.

❷ Gather them together in one document, using the Copy and Paste commands as necessary.

❸ Use the Save Library command to name and save a new library file.

You'll see a dialog box in which you may enter the name. To type the name:

Keyboard users: press the letter 'N' as in 'Name,' which appears below the fill-in box. A cursor will appear in the fill-in box; you may begin typing the name.

Mouse users: move the cursor inside the fill-in box and click, then type the name.

Remember: you're limited to legal DOS file names: up to eight letters, no blank spaces, letters and numbers only. You don't need to type in the extension. Press Enter when you've completed the name, then select the Save button to save the file. Afterwards, when you use the Library command on the File menu, you'll see your custom library listed.

PRINT (CTRL-P)

To print the current design document, use the Print command.

PRINTER...

The Printer... command allows you to choose the active printer from a list of installed printers as well as choose other printer setup options. A popup submenu will appear when this menu command is activated. Choose from the popup in the same manner you would choose from a regular menu:

Model...

Choose the appropriate printer from the next level popup submenu that appears. Your choices are Epson, IBM ProPrinter, HP LaserJet series II, and HP DeskJet.

Port...

Simply choose parallel port one (LPT **1**) or parallel port two (LPT **2**) from the next level popup submenu that appears.

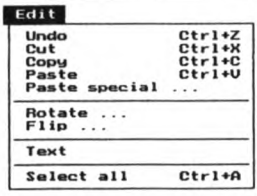
Resolution...

On printers which support it, you may specify a resolution. Choose **L**ow, **M**edium or **H**igh from the next level popup submenu that appears.

EXIT ALT-F4

To quit the program, use the **E**xit command. If the design document was changed, Home Design will prompt you to save your changes before quitting.

Chapter 6 The Edit Menu



The **Edit** menu allows you to undo a previous action, or move, copy, paste, rotate, flip, or select all objects. It also allows you to change the text of an existing text object.

Important term: the *clipboard* is a temporary storage area in which you can hold an object or objects. Whenever you **Copy** or **Cut** an object, it stays in the clipboard until you **Copy** or **Cut** something else. You can **Paste** a copy of the object into your current document using the **Paste** command.

As an example of how useful this may be, to copy part of a plan from one document into a new document, you would:

1. Open the first file (using the **Open** command, and specifying a file).
2. Select and copy the object(s), using the **Copy** command.
3. Create a new file, with the **New** command.
4. **Paste** the objects into the new, blank document.

UNDO (CTRL-Z)

Use the **Undo** command to reverse the most recent action that altered your design document (a drawing action). If you make a mistake, and then *immediately* choose this command, it will fix it. If, for example, you accidentally delete an object and want it back, use the **Undo** command.

Important: this will only correct the *most recent* action. If you accidentally delete an object, then add a line to the drawing, the first object is no longer recoverable. The **Undo** command will only remember the last command. Certain commands cannot be undone, such as saving a file.

CUT (CTRL-X)

To delete an object from your design and place it in the clipboard, use the **Cut** command. You may use the **Paste** command to copy the object back into the current design document. The information remains in the clipboard until you cut or copy something else. You may therefore **Paste** repeatedly. Note: if the 'cut' object was 'locked,' it will be copied to the clipboard, but will not be deleted from the design document.

COPY (CTRL-C)

To copy an object from your design and place it in the clipboard, use the **Copy** command. The original will remain in your document. You may use the **Paste** command to copy a duplicate of the object into the current design document. The information remains in the clipboard until you **Cut** or **Copy** something else there; you may **Paste** repeatedly.

PASTE (CTRL-V)

To copy an object from the clipboard into your design document, use the **Paste** command. The original must have been previously copied or cut into the clipboard. You may use the **Copy** and **Paste** commands to easily make multiple copies of any object in your design. It's also a convenient way to transfer part(s) of one design document to another.

The pasted object will appear at a point near the last selected object. Note that if you paste in a bitmap image, the pasted copy will be positioned at the top left of the document window, ready for you to move or size.

PASTE SPECIAL

The Paste Special command copies the entire contents of another file into the current document. The file types will appear on a popup submenu.

You may choose from another Home Design document, a Home Design for Windows document (only if it does not include a Windows .BMP file or a Windows OLE object), or a .PCX bitmapped graphics file.

ROTATE

To rotate the selected object 45° Left or Right, use the **Rotate** command. Choose the direction from the popup submenu. Note: bitmap images cannot be rotated.

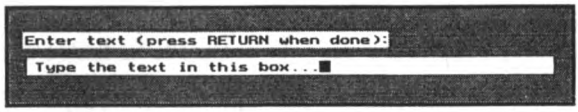
CGA, EGA and Hercules users: when using the Rotate command, objects will rotate in 90° increments only.

FLIP

To flip the selected object 180° up or down, or left or right, use the **Flip** command. Choose the direction from the popup submenu. 'Horizontal' turns the selected object into its mirror image. 'Vertical' turns it upside down.

TEXT

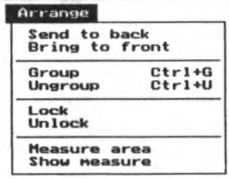
To change the letters or words of a text object, select it and choose this command. The same fill-in box in which you entered the text with the text tool will appear. Use the backspace and/or delete keys to modify the old text, then enter the new text and press Enter. To abort the operation, press Esc (Escape).



SELECT ALL (CTRL-A)

To Select **All** the objects in the current drawing, use this command. Any subsequent drawing action will affect all the selected objects. To quickly clear the drawing, for example, select this command, then press the Del (Delete) key.

Chapter 7 The Arrange Menu



The Arrange menu controls the spatial relationship of the objects in your design. You may specify, for example, which object appears on top of another. You may group objects, then manipulate them as one. Additionally, you can measure part(s) of the design and display an area measurement.

SEND TO BACK

This allows you to position the selected object behind any other object(s). *Note*: the object you wish to Send **B**ack will still be selected after executing this command. It won't *appear* to go to the back until you select another object. You may also *de-select* it by clicking any part of the design window which does not contain an object.

BRING TO FRONT

This allows you to position the selected object in front of any other objects which may completely or partially overlap it.

GROUP (CTRL - G)

To turn multiple objects into one for editing purposes, use the **G**roup command. To select multiple objects, click on the first one, hold down the Shift key and click the additional object(s). Additional handles will appear for each successively selected object.

Once grouped, there will only be four handles, located at the farthest corners of the objects selected. You may now move or re-size all the objects at once.

Note: you may also make a multiple selection by dragging a selection box around several objects with the Pick tool. Only the objects you want to select should be in that square area. If other objects overlap, they will be selected, too.

The **G**roup command is essential for creating new furniture objects. Assume you wish to create your own sink. For this example, the sink will consist of a square enclosing a circle filled with light blue.

❶ Select the box tool and draw a square.

❷ Select the circle tool and draw a circle inside the square.

❸ From the **Options** menu, choose Fill Color, and select the light blue from the colors dialog box. You should see a square surrounding a light blue circle.

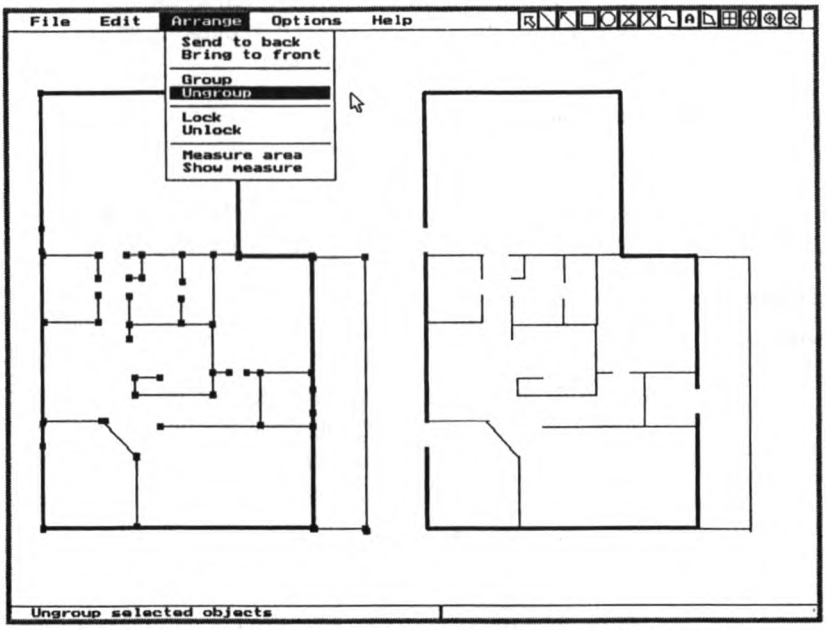
❹ Hold down the Shift key and click along the edge of the square, or press Shift plus Enter to select both at once.

❺ Execute the **Group** command.

You may now move or size your 'sink,' as you wish, manipulating both the square and the circle at the same time.

UNGROUP (CTRL - U)

To reverse the effects of the group command, use the **Ungroup** command. Select a grouped object, then execute the command. The individual handles for each object will appear. You may resize, move or otherwise manipulate each member individually. You can regroup them again at any time.



The objects at the left represent the 'ungrouped' components of the 'grouped' object at the right.

The Ungroup command is useful for customizing the furniture from the libraries. Assume you have a dining room table, and wish to color it brown without changing the dishes and silverware. Select the furniture piece in your document. Choose the **Ungroup** command. You can then select the rectangle which defines the table itself, and change its fill color to brown (or some other color). After, you can Shift-click the other elements (the dishes and silverware, etc.), and use the **Group** command to regroup them.

LOCK

To prevent further editing of the selected object, use the Lock command. Once locked, you may no longer re-size it, or change other attributes such as color.

This is useful if you fill your design with many objects. It prevents selecting the wrong element and changing it accidentally.

Locked objects cannot be moved; however, you may group them with another object(s) and then move them. Note that when you select a 'locked' object, the handles will appear hollow rather than solid.

UNLOCK

The Unlock command allows you to re-enable further editing of a selected object which had previously been 'locked.' You'll be able to make any normal editing changes after unlocking.

MEASURE AREA

The Measure Area command allows you to select a square area or series of areas on screen. Activate the command and draw a box around the area(s) you wish to measure. A running total in square feet or meters will be displayed along the bottom status line.

To measure an 'L' shaped room, take two separate measurements. When you are finished measuring, execute the command again. This will 'turn off' the 'dot' next to the command on the menu.

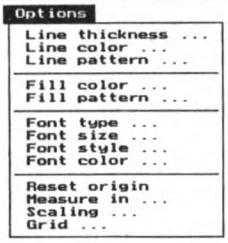
When you print the drawing, the measurement will appear as page two of the printout. To display the total measurement on screen, use the Show Measure command, described below.

Note: if you had previously measured part of the current design document, a dialog box will appear when you next execute the Measure Area command. Specify whether you wish to add a new measurement to the old, or clear the old measurement (start from zero).

SHOW MEASURE

The Show Measure command will display an information box listing the width, height and area measurements for the previously measured area(s). Press Enter or click on the 'OK' button to close the box.

Chapter 9 The Options Menu



The commands on the Options menu enable you to specify the color and texture of objects and to choose the font and style qualities for text. It also provides you with the ability to specify an onscreen grid for arranging your design, plus select the scale of a new or current design.

LINE THICKNESS

The Line Thickness command allows you to select the thickness for the borders of a selected or new object. When the popup submenu appears, select the thickness you wish. The following chart will help you find the real world equivalent measurement per pixel for your line thickness.

	Home Design Scale:		
Thickness	**Small**	**Medium**	**Large**
Normal	.042 Ft.	.083 Ft.	.166 Ft.
Thick	.125 Ft.	.250 Ft.	.500 Ft.

LINE COLOR

The Line Color command allows you to select the line (or border) color for a selected or new object from the colors dialog box. When the dialog box appears, select a color rectangle.

Keyboard users: use the arrow keys, (note the sample square changes to show the current selection), then press Enter to choose a color.

Mouse users: move the mouse cursor to a color square and click.

Select the OK button to return to the design document.

Note: the sixteen colors you see are the default DOS colors for VGA mode and cannot be changed.

CGA and Hercules Users: there are only two colors available for your display: black and white. Instead of a dialog box, choose the line color from a popup submenu listing these two choices.

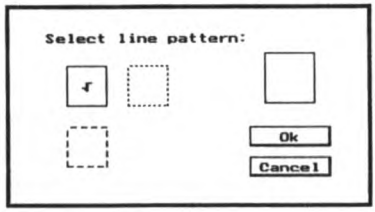
LINE PATTERN

The Line Pattern command allows you to select a dotted or solid line pattern. There are two types of dotted line to choose from. When the dialog box appears, select a pre-set pattern rectangle.

Keyboard users: use the arrow keys, (note that the sample square changes to show the current selection), then press Enter to choose.

Mouse users: move the mouse cursor to a square and click.

Select the OK button to return to the design document.



FILL COLOR

To select the *inside* color for a selected object or new object, use the Fill Color command. Choose a color from the dialog box.

Keyboard users: use the arrow keys, (note that the sample square changes to show the current selection), then press Enter to choose a color.

Mouse users: move the mouse cursor to a color square and click.

Select the OK button to return to the design document.

Note: the sixteen colors you see are the default DOS colors for VGA mode and cannot be changed.

CGA and Hercules Users: there are only two colors available for your display: black and white. Instead of a dialog box, choose the line color from a popup submenu listing these two choices.

FILL PATTERN

The Fill Pattern command allows you to select the *inside* texture for a selected object or object from a dialog box.

Keyboard users: use the arrow keys, (note that the sample square changes to show the current selection), then press

Note: to create an object with no fill — a transparent object — choose the 'empty' square at the bottom right of the dialog box.

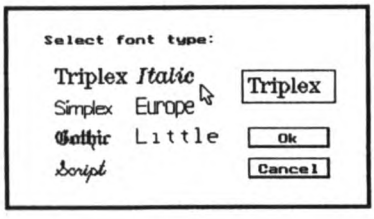
FONT TYPE

The Font Type command allows you to choose the typeface for a selected or new text object from a dialog box.

Keyboard users: use the arrow keys, (note the sample square changes to show the current selection), then press Enter to choose.

Mouse users: move the mouse cursor to a square and click.

Select the OK button to return to the design document.



FONT SIZE

The Font Size command allows you choose the type size for a selected or new text object from a popup submenu. The sizes listed on the submenu are relative sizes, from one to ten.

FONT STYLE

The Font Style command allows you choose the type style for a selected or new text object from a popup submenu. Choose from Normal, Boldface or Underlined.

FONT COLOR

To select the color for a selected or new text object, use the Font Color command. Choose a color from the dialog box.

Keyboard users: use the arrow keys, (note the sample square changes to show the current selection), then press Enter to choose a color.

Mouse users: move the mouse cursor to a color square and click.

Select the OK button to return to the design document.

Note: the sixteen colors you see are the default DOS colors for VGA mode and cannot be changed.

CGA and Hercules Users: there are only two colors available for your display: black and white. Instead of a dialog box, choose the line color from a popup submenu listing these two choices.

RESET ORIGIN

The Reset Origin command changes the zero or origin point for all measurements to the upper left hand corner of the design area. If you change the zero point with the origin tool, this allows you to set it back.

MEASURE IN

The Measure In... command allows you to tell the program to display measurements in feet or meters. Choose from the popup submenu.

SCALING

To choose a new scale for the current design document, use the Scaling command. Choose Small, Medium or Large. These allow for a design approximately 25 ft. across at small scale, 50 ft. at medium, and 100 ft. at large. All objects in the drawing may then be re-scaled.

When you print the scale should be 1 inch = 4 ft. (Small), 1 inch = 8 ft. (Medium) and 1 inch = 16 ft. (Large). This may vary with the printer. To calculate the exact scale of your printer's output, do the following:

- ❑ Draw a box measuring 10 ft. by 10 ft. at small scale and print it.
- ❑ Measure a side of the box and convert any fractions to decimal.
- ❑ Divide the number 'one' by the measurement, then multiply the result by ten to arrive at your scale: 1 inch on the printed page will equal that many feet.

GRID

The Grid commands place a dot grid in the background of the current design document. This is helpful for aligning objects. The grid will not appear on your printed designs. A popup menu will appear with the following choices:

Grid Spacing

The Grid Spacing command allows you to set the spacing between each grid dot. Choose a number in feet and inches.

- Mouse users: position the cursor to the arrow controls next to each number, then click to increase or decrease.

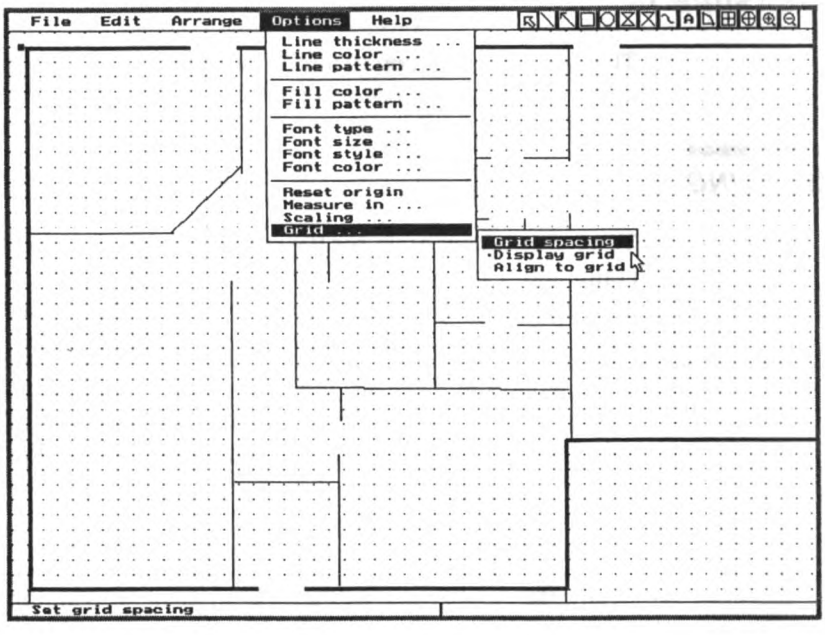
Keyboard users: use the up and down arrow keys to increase or decrease the feet measurement, respectively, and the right and left arrows for the inches measurement.

Display Grid

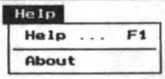
The **D**isplay Grid command alternately displays or hides the grid.

Align to Grid

The **A**lign to Grid command forces new objects to position their handles on the nearest grid dots. This is useful for quickly positioning objects in an exact spatial relation to others. Any objects previously created but moved after executing this command will align their upper left handle with the grid.



Chapter 10 The Help Menu



The Help menu allows you to access the help text, as well as to display an 'About' with program and memory status information.

TOPICS (F1)

The first five commands on this menu provide access to the Expert Home Design help text. The command names are the same as the menu titles: File, Edit, Arrange, Options, plus a topic for Tools.

A popup submenu will appear with subtopics for each. Once you choose a subtopic, the help text will appear. Click on the OK button or press Enter to return to editing.

Within the help text window, the 'PgUp' and 'PgDn' buttons will appear. If you select these buttons, or press the equivalent keys, the next help item will appear.

ABOUT

This displays an information box with the program copyright and version information.

The box will also display memory statistics. This will tell you how much conventional memory is free. For the other types (extended, expanded, and swappable disk space) the number represents how much of each type is available to the program, not how much is actually being used. See the appendix for additional discussion of memory issues.

Chapter 11 The Tools

The Tools are your main drawing aids. Mouse users can activate a tool simply by clicking on its icon in the toolbox. Keyboard users must press a function key or combination. Each tool is described below:

PICK (F2)

To select an object or objects, use the Pick tool. To select a single object, place the pointer arrow on it and click or press Enter. To select additional objects, hold down the Shift key, place the pointer on another object, and click or press Enter again. To select an object underneath another, move the pointer on top of the top object, hold down the Ctrl key and click or Enter.

A selected object will display its handles -- the small squares at its corners. Once selected with the pick tool you may move an object by dragging with the mouse or pressing the cursor keys. To re-size it, grab one of the handles and drag or press the cursor keys until you reach the desired size.

LINE (F3)

To draw a straight line, use the Line tool.

Mouse users: select a starting point, press the mouse button, drag until you reach the end point you wish, then release the mouse button.

Keyboard users: move the cursor to a starting point with the arrow keys, press Enter, move to the ending point, then press Enter again.

The bottom line status displays the length of the line as you draw. (Before drawing, it displays the position of the cursor vs. the origin point).

You may set the color with the Line Color command on the Options menu. You may set the thickness with the Line Thickness command on the same menu.

ARROW (F4)

The arrow tool (or dimension-line tool) works exactly the same way as the line tool. The only difference will be that the line has arrowheads at each end.

BOX (F5)

To draw a box, use the box tool.

Mouse users, select the tool, choose a point for the first corner of the box, press the mouse button, drag to the opposite corner, and release the mouse button.

Keyboard users, using the arrow keys, move the cursor to the first corner of the box. Press Enter, move to the opposite corner, then press Enter again.

The bottom line status displays the length and height of the box as you draw: vertical is 'H' (height) and horizontal is 'W.' (Width). (Before drawing, it displays the position of the cursor vs. the origin point).

The border color of the box may be set with the Line Color command on the Options menu. The fill color or pattern may be set with the Fill Color and Fill Pattern commands on the same menu.

Tip: the easiest way to draw the outer boundaries of your home is to make a box. Then draw the windows on top of the box lines. Use a white filled/ white bordered box to blank out an opening for the door(s). If the outer boundaries are irregular (as in an 'L'-shaped home), you may use a white box to blank out an entire portion of the boundary box.

CIRCLE (F6)

To draw a circle or ellipse, use the Circle tool.

Mouse users: select a starting point, press the mouse button, drag until you reach the ending point you wish, then release the mouse button. The circle's size will be such that it fits in a square whose opposite corners are the starting and ending points.

Keyboard users may move the cursor to the first point with the arrow keys, press Enter, move to the second point, then press Enter again.

The border color of the circle may be set with the Line Color command on the Options menu. The fill color or pattern may be set with the Fill Color and Fill Pattern commands on the same menu. Note that to select the circle with the Pick tool, you may click on either its interior or its border.

FILLED POLYGON (F7)

The Filled Polygon tool allows you draw an irregular, closed object, which may be filled with color. A handle will be located at each corner of the polygon. You may edit any line segment.

Mouse users: select a starting point and click. Move the mouse and click at

the first corner point. Move to the next point and click again, and so forth. When you wish to close the polygon, click with the right mouse button, or hold down Alt and click the left mouse button

Keyboard users: move the cursor to a starting point and press Enter. Move to each successive point and press Shift plus Enter. For the final point, press Enter.

To re-size or re-shape the object, activate a handle at any of its corners, and move the handle to the desired new position. You may set the color with the Line Color command on the Options menu. You may set the thickness with the Line Thickness command on the same menu. You may set the inside color with the Fill Color command.

Tip: to make a hollow object, draw your object with the proper fill. De-select it by using the Pick tool to click on an empty part of the design document. Then set the Fill Color and Line Color to white. You may then choose a shape tool (Box, Circle, Filled Polygon) and draw an 'empty' shape inside the first object, making it 'hollow.'

OPEN POLYGON (F8)

To draw a broken or zigzag line, use the Open Polygon tool. Each part of the broken line will be edit-able. A handle appears at each 'break' or angle. The line may cross over itself or be as long as you wish.

Mouse users: select a starting point and click. Move the mouse and click at the first corner point. Move to the next point and click again, and so forth. When you wish to finish the line, click with the right mouse button, or hold down Alt and click the left mouse button.

Keyboard users: move the cursor to a starting point and press Enter, then move to each successive point and press Shift plus Enter. For the final point, press Enter.

To re-size the line, or its parts, activate a handle at any of the corners, and move the handle to the desired new position. You may set the color with the Line Color command on the Options menu. You may set the thickness with the Line Thickness command on the same menu.

CURVE (F9)

To draw a bezier curve, use the Curve tool. A bezier curve has handles which allow you to edit its shape. The curves have four handles.

Mouse users: select a starting point, press the mouse button, drag until you reach the ending point you wish, then release the mouse button.

Keyboard users: move the cursor to a starting point with the arrow keys, press Enter, move to the ending point, then press Enter again.

You may set the color with the Line Color command on the Options menu. You may set the thickness with the Line Thickness command on the same menu.

TEXT TOOL (CTRL-F2)

To place text in the design document, use the Text tool. The cursor will become an insertion point. Click or press Enter anywhere in the design document to place the text. A dialog box will appear in which to type the text. Type the text and press Enter. The text will appear in the spot you chose. (Note: Esc [Escape] will close the box without placing the text).

Choose text attributes with the Options menu. You may choose a font face, size, color, style attributes, etc.

To resize or reformat text, select it and choose the appropriate command on the Options menu. To change the text itself, select it and choose the Text command on the Edit menu. The dialog box in which you originally entered the text will reappear.

You may *graphically edit* the text – stretch, shrink and otherwise re-shape it — by manipulating the text's handles. Note that if you later use the Font Size command on the Options menu, the new text size and 'shape' will match the options selected.

DOORS (CTRL-F3)

To quickly create a door outline, indicating the door's 'path,' use the Door tool. The path will appear as a dotted arc.

Mouse users: select the tool, then click on the origin point for the door. The origin will be where the door's hinges would be. Press the mouse button and drag to the end point, i.e., where the door knob would be. The path of the door will appear as a curve on one side of the door. Another line will indicate the position of the door when wide open. If the pathway of the door appears on the wrong side relative to the room, execute the Flip command on the Edit Menu.

Keyboard users: position the pointer using the cursor keys, press Enter for the door's origin point, move the cursor, then Enter again for the end point.

Consider using a white filled/white bordered box to blank out an opening for the door(s). To lay down the 'white box,' be sure the Fill Color on the Options menu is set to white. Set the Line Color on the same menu to white. Choose the Box tool. Draw a box the width of the door, starting at a point a pixel or two above the wall, and ending a pixel or two below. Use the measurement on the status line to verify the correct width. The 'white box' should cover the wall, appearing to make a hole in it. You may wish to Group the 'white box' and the wall object. Then draw the door.

WINDOWS TOOL (CTRL-F4)

To add windows to your layout, use the Windows tool. The window representations are hollow parallel lines. Here's how to add a window directly on top of an existing wall:

- Mouse users: find the starting place for the window. Press the mouse button and drag. Release the button when the status line measurement shows the window is the proper size.
- Keyboard users: press Enter for the window's starting point, move the cursor with the arrow key(s), the press Enter again when the window is the right size.

Tip: always be sure that the window is the same color as the wall below it. Once the window is in place, select both the window and the wall below it and Group them. Consider using the Lock command as well.

ORIGIN (CTRL-F5)

To set the zero point for future measurements, use the Origin tool. Select the tool and click or press Enter anywhere in the design document. Once set, the measurement on the status bar will change as you move the cursor. It display how many feet or meters the cursor tip is away from the origin point in both the horizontal and vertical planes.

The Origin tool allows you to place any two objects in an exact spatial relationship. This is useful for laying down an element at a precise position relative to another. You may set the origin at the top of an outer wall, then place another wall at a precise known point along that wall by watching the status line measurement. When you first open a document, the default origin point is the upper left hand corner of the design document.

ZOOM (CTRL-F6, CTRL-F7)

There are two zoom tools: one looks like a magnifying glass with a "+" inside the lens, and the other with a "-" inside. These allow you to magnify (zoom in, or "Zoom +") or reduce (zoom out, or "Zoom -") the view of the design document. This will affect the appearance only, and not change the scale.

Move the cursor to a point in the middle of the area you wish to zoom in to or away from, and click or press Enter. The program will check where you clicked, and magnify that quadrant of the document by four times.

Note: while in zoom mode, you may scroll the screen using the ↑, ↓, Tab, and Shift plus Tab keys for up, down, left and right, respectively.

Chapter 12 The Mortgage Program

The mortgage program is a separate application which will help you calculate the costs of financing, and/or building your home.

To run the mortgage program, log into the directory you installed Expert Home Design to, type **MORTGAGE**, then press Enter. In the example below, the user logs into drive C:, changes directory to \DESIGN, then starts the program:

```
C:                Enter
CD\DESIGN         Enter
MORTGAGE          Enter
```

To use the program, you may access commands from the menu in the same way as the main design program; Alt plus the highlighted letter will 'pull down' a menu. A key-press of the highlighted command letter will execute the command. The mouse cursor will appear in the shape of a block rather than an arrow.

You can have a 'report' for each type of calculation active in a separate 'window,' or rectangular area containing the text of the report. The 'report' shows the calculations or table in list format. You may re-size and re-arrange these windows simply by placing the mouse cursor on the top line of the window and dragging.

Keyboard users will notice a legend at the bottom of the screen whenever a report 'window' is open; the combination keys for re-sizing and moving the windows are noted there.

While entering data in a dialog box, you may use the Tab key to move from fill-in-box to fill-in-box, and to the command buttons. You may also press Alt plus the highlighted letter of the item you're entering.

THE FILE MENU

The File menu allows you to save your calculations, or open previously saved files.

- To create a 'blank' calculation file, and close the current file, use the **New** command.
- The **Open** command provides you with a file list of previously saved files. To move the highlight from the file list, to the directory list, to the OK and Cancel buttons, use the Tab key. When the file name you wish to open

appears in the file name box, select the OK button.

- To save the current calculations use the **Save** command. If you haven't previously saved it, the Save As dialog box will appear.
- The **Print** command will print the report in the top window.
- The Exit (Alt plus F4) command will quit the program.

THE CALCULATE MENU

The **Calculate** menu allows you to enter the data for the following:

- **Qualification** calculates the highest mortgage you qualify for. In the dialog box, fill in:
  - your gross monthly income
  - debt payment (total monthly bills)
  - down payment available (as percent of total price)
  - annual percentage interest rate
  - total number of payments
  - the number of payments per year.

  Then, press the Compute button. To view the report, see the **View** menu section, below.
- **Fixed rate mortgage** calculates an amortization table. This is a payment schedule detailing interest and principle payments. When the dialog box appears, fill in:
  - the Loan amount
  - any optional Extra payment per month
  - the annual Interest rate percentage
  - taxes and Insurance charges per month
  - the Total number of payments
  - the number of payments per year.

  Then, press the Compute button. To view the report, see the **View** menu section, below.
- **Adjustable rate mortgage** calculates an amortization table. This is a payment schedule detailing interest and principle payments. When the dialog box appears, fill in:
  - the Loan amount
  - any optional Extra payment per month.
  - the annual interest rates for up to five separate periods.

The program will calculate at each rate starting at the loan year you specify. It will apply the rate from that year either to the end of the loan, or the next loan year you specify.

- taxes and Insurance charges per month
- the Total number of payments
- the number of payments per year in the next fill-in boxes.

Then, press the Compute button. To view the report, see the View menu section, below.

THE VIEW MENU

The View menu:

❶ Brings the report you wish to the front of the display if it's already on screen

❷ Generates the report if a previously saved file is open and you haven't looked at the report this session.

❸ If no file is open and no data has been entered, will bring up the appropriate entry dialog box so that you may enter the data.

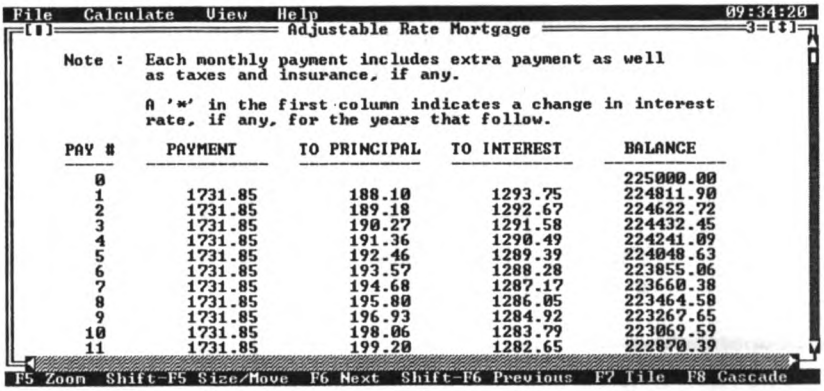
❑ Qualification shows the maximum mortgage rate you qualify for, plus your maximum monthly housing allowance, your estimated monthly payments, and estimated price range for your house.

> If you haven't already filled in the dialog box under the Calculate/Qualification command, you'll need to do so before viewing this report. Use the Close command on the View menu, or click with the mouse on the square in the upper left hand corner of this window to close it.

❑ Fixed Rate Mortgage displays your amortization table. The table will be broken out by year, detailing the payment to principal, interest, and balance left for each monthly payment.

> If you haven't already filled in the dialog box under the Calculate/Fixed Rate Mortgage command, you'll need to do so before viewing this report. Use the Close command on the View menu, or click with the mouse on the square in the upper left hand corner of this window to close it.

❑ Adjustable Rate Mortgage displays your amortization table. The table will be broken out by year, detailing the payment to principal, interest, and balance left for each monthly payment.



If you haven't already filled in the dialog box under the Calculate/Adjustable Rate Mortgage command, you'll need to do so before viewing this report. Use the Close command on the View menu, or click with the mouse on the square in the upper left hand corner of this window to close it.

- Building Estimate displays the estimated total cost of building your home, along with the numbers you entered for its size and building cost per sq. ft.

  If you haven't already filled in the dialog box under the Calculate/Adjustable Rate Mortgage command, you'll need to do so before viewing this report. Use the Close command on the View menu, or click with the mouse on the square in the upper left hand corner of this window to close it.

- The Close command will make the report window on top go away.

THE HELP MENU

The Help menu allows you to access the help text, as well as to display an 'About' with program information.

- Index provides access to the Contents page for the help topics.
- About displays an information box with the program copyright and version information.

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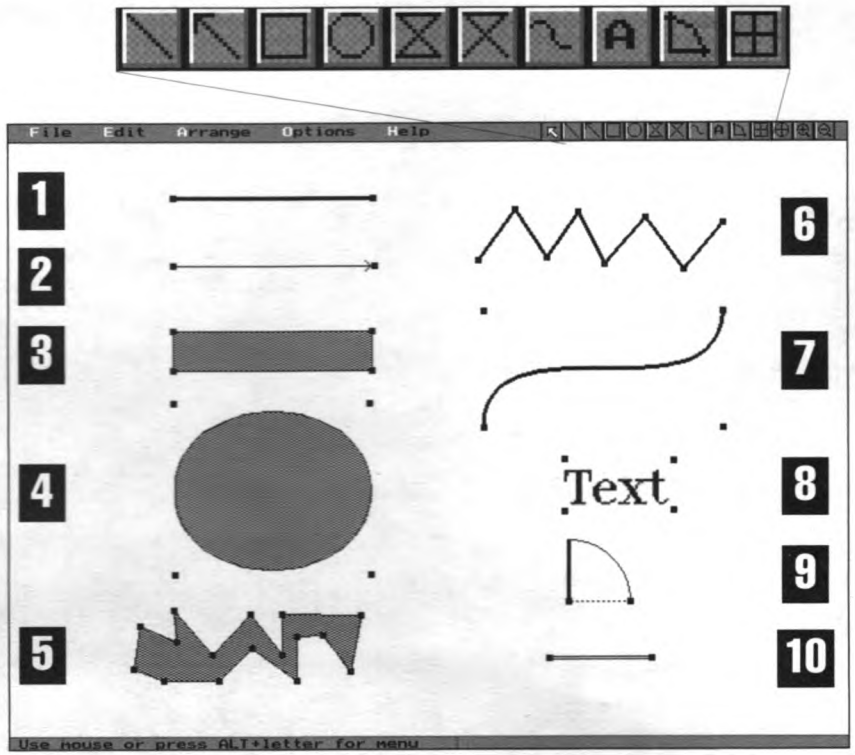
The Drawing Tools



1. The **Line** tool draws a straight line with two points you may edit.
2. The **Arrow** tool draws a straight line with an arrowhead at one end.
3. The **Box** tool draws a filled box with four points you may edit.
4. The **Ellipse** tool draws a filled circle with four points you may edit.
5. The **Filled Polygon** tools draws an irregular filled shape. You may edit any angle.
6. The **Open Polygon** tools draws a zigzag line; you may edit any angle.
7. The **Curve** tool draws a Bezier curve. It has four points that allow you to change the size and the shape of the curve.
8. The **Text** tool draws text. You may edit four points; use the Options menu commands to set text attributes.
9. The **Door** tool draws a 'pie shape' which represents a door and its path. It has two points you may edit.
10. The **Window** tool draws a parallel line that represents a window. It has two points you may edit.

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